October 2, 2001

Tammi J. Walts
Apollo America Corporation
701 Port Road
Jeffersonville, IN 47130

Re: Registered Construction and Operation Status,
019-13776-00047

Dear Ms. Walts:

The application from Apollo America Corporation, received on January 3, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following petroleum storage and blending facility, located at 701 Port Road, Jeffersonville, Indiana, is classified as registered:

(a) Two (2) natural gas boilers rated at 20.95 MMBtu/hr each (B-1 and B-2) venting to atmosphere through stacks EP-1 and EP-2.

(b) One (1) natural gas-fired boiler rated at 0.825 MMBtu/hr (B-3).

(c) Nine (9) natural gas-fired heaters rated at 0.79 MMBtu/hr each (DH-1 to DH-9) venting into the atmosphere.

(d) Ten (10) natural gas-fired space heaters rated at 0.15 MMBtu/hr each (UH-1 to UH-10) venting into the atmosphere.

(e) Seven (7) natural gas-fired space heaters rated at 0.3, 0.3, 0.135, 0.08, 0.09, 0.09, and 0.1 MMBtu/hr respectively (RTU-1 to RTU-7) venting into the atmosphere.

(f) Five (5) 66,000 gallon fixed roof base oil tanks (TO-101, TO-105, TO-111, TO-113, and TO-115)

(g) Eight (8) 33,000 gallon fixed roof base oil tanks (TO-103, TO-104, TO-107 to TO-110, TO-117, and TO-108)

(h) Eleven (11) 17,600 gallon fixed roof petroleum products storage tanks (TO-701 to TO-711)

(i) Eleven (11) 11,000 gallon fixed roof base additive oil tanks (TO-201 to TO-211)

(j) Five (5) 450 gallons storage tanks (T0-321 to TO-325)

The following conditions shall be applicable:

1. Pursuant to 326 IAC 5-1 (Visible Emissions Limitations), Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), this source is in the township of Jeffersonville, therefore Subpart b applies, such that opacity shall meet the following, unless otherwise stated in this permit:

   (A) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

   (B) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

2. Pursuant to 326 IAC 2-6 (Emission Reporting), this source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

3. Pursuant to 326 IAC 6-2-4 (Emission Limitations for Indirect Heating Boilers), PM emissions from the boilers shall not exceed 0.41 pounds per MMBtu as noted in the following equation:

   $$Pt = \frac{1.09}{Q^{0.26}}$$

   Where: Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.
   Q = Total source maximum operating capacity rating in million Btu per hour (MMBTU/hr) heat input. The maximum operating capacity rating is defined as maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is conducted in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

   The maximum potential emission for all boilers is well below the allowable PM emission rate. In order to maintain registration status total potential PM emission must be less than 25 tons per year.

4. Pursuant to 326 IAC 8-9 (Volatile Organic Liquid Storage Vessels), applies to storage tanks TO-321 to TO-325, such that the operator must record and submit to the Office of Air Quality a report containing the following information for each vessel:

   (A) Vessel identification number
   (B) Vessel dimensions
   (C) Vessel capacity

5. Pursuant to 326 IAC 8-9-1 to 8-9-6, 40 CFR 60.110b-117b Subpart Kb (Volatile Organic Storage Vessels), Section 60.116b (Monitoring of Operations) applies for chemical storage tanks with a capacity greater than 40 cubic meters (m^3) and were constructed after July 1984; all of Apollo's 35 fixed roof tanks, have a capacity greater than 40 M^3 and were constructed in 1991. The owner or operator of any storage vessel with a capacity greater than or equal to 40 m^3 shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity the storage

vessel. For storage vessels equal to or greater than 75 m^3, but less than 151m^3, which would include tanks TO-103, TO-104, TO-107 to TO-110, TO-117, and TO-118, the facility should notify IDEM within 30 days when the true vapor pressure of the stored liquid exceeds 27.6 kPa. For storage vessels equal to or greater than 151 m^3, which would include TO-101, TO-105, TO-111, TO-113, and TO-115 the facility should notify IDEM within 30 days when the true vapor pressure of the stored liquid exceeds 5.2 kPa.

6. Pursuant to 326 IAC 12, 40 CFR 60.40c - 60.48c Subpart Dc (Boilers), the facility must maintain monthly records of the amount of fuel combusted for a period of two (2) years.

This registration is a registration renewal issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached. This registration is a registration renewal issued to this source. The source may operate according to 326 IAC 2-5.5.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

ERG/RB

cc: File - Clark County
Clark County Health Department
Air Compliance - Joe Foyst
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

Company Name:	**Apollo America Corporation**
Address:	**701 Port Road**
City:	**Jeffersonville, Indiana**
Authorized individual:	**Tammi Walts**
Phone #:	**(812) 284-3300**
Registration #:	**019-13776-00047**

I hereby certify that Apollo America Corporation is still in operation and is in compliance with the requirements of Registration 019-13776-00047.

Name (typed):
Title:
Signature:
Date:

October 2, 2001

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	Apollo America Corporation
Source Location:	701 Port Road, Jeffersonville, Indiana 47130
County:	Clark
SIC Code:	2992
Operation Permit No.:	019-13776-00047
Permit Reviewer:	ERG/RB

The Office of Air Quality (OAQ) has reviewed an application from Apollo America Corporation relating to the construction and operation of petroleum products blending and storage operation.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) Two (2) natural gas boilers rated at 20.95 MMBtu/hr each (B-1 and B-2) venting to atmosphere through stacks EP-1 and EP-2.

(b) One (1) natural gas-fired boiler rated at 0.825 MMBtu/hr (B-3)*.

(c) Nine (9) natural gas-fired heaters rated at 0.79 MMBtu/hr each (DH-1 to DH-9) venting into the atmosphere.

(d) Ten (10) natural gas-fired space heaters rated at 0.15 MMBtu/hr each (UH-1 to UH-10) venting into the atmosphere.

(e) Seven (7) natural gas-fired space heaters rated at 0.3, 0.3, 0.135, 0.08, 0.09, 0.09*, and 0.1* MMBtu/hr respectively (RTU-1 to RTU-7) venting into the atmosphere.

(f) Five (5) 66,000 gallon fixed roof base oil tanks (TO-101, TO-105, TO-111, TO-113, and TO-115).

(g) Eight (8) 33,000 gallon fixed roof base oil tanks (TO-103, TO-104, TO-107 to TO-110, TO-117, and TO-108).

(h) Eleven (11) 17,600 gallon fixed roof petroleum products storage tanks (TO-701 to TO-711).

(i) Eleven (11) 11,000 gallon fixed roof base additive oil tanks (TO-201 to TO-211).

(j) Five (5) 450 gallons storage tanks (T0-321 to TO-325)*.

* Note: Not included in prior permits, but emissions are at exemption level.

Unpermitted Emission Units and Pollution Control Equipment

The are no unpermitted units at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Registration 019-2992-00049 issued on November 19, 1991.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

There are no enforcement action pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
EP-1	Boiler B-1	35.8	1.75	70	300
EP-2	Boiler B-2	35.8	1.75	70	300
EP-3	Blending	36	0.67	3,000	Ambient

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 3, 2001, with additional information received on February 19, 2001.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 4, Appendix B contains out put from the EPA's Tank Software.)

Potential To Emit Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	1.75
PM-10	1.75
SO_2	0.14
VOC	2.23

Pollutant	Potential To Emit (tons/year)
CO	19.29
NO_x	22.96

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 25 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) NO_x is greater than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.5-1.

(d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in Clark County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Moderate
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) and oxides of nitrogen are precursors for the formation of ozone, therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Clark County has been designated as nonattainment for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

(b) Clark County has been designated as attainment or unclassified for all other criteria pollutants. Therefore, these emissions are reviewed pursuant to the requirements for Prevention of Significant Determination (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1.75
PM10	1.75
SO_2	0.14
VOC	2.23
CO	19.29
NO_x	22.96

(a) This existing source is **not** a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year.

(b) These emissions were based on data provided in the application (See Appendices A and B for calculations).

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
(c) any combination of HAPs is less than 25 tons/year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

(a) Two natural gas fired boilers, B-1 and B-2, are subject to the New Source Performance Standards (NSPS) 40 CFR 60 40c through 60.48c, Subpart Dc as each boiler is larger than 10 MMBtu/hr and were constructed after June 1989. B-1, B-2 have a MMBtu/hr rating of 20.95 (each) and both were constructed in 1991. This rule requires the sources maintain monthly records of the amount of fuel combusted for a period of two (2) years.

Boiler B-3 is not applicable to this rule as its capacity is 0.825 MMBtu/hr which is less than the 10 MMBtu/hr threshold.

(b) 326 12, 40 CFR 60.110b-60.117b) Subpart Kb Standards of Performance for Volatile Organic Section 60.116b (Monitoring of Operations) applies for chemical storage tanks with a capacity greater than 40 cubic meters (m^3) and were constructed after July 1984; all of Apollo's 35 fixed roof tanks, have a capacity greater than 40 M^3 and were constructed in 1991. The owner or operator of any storage vessel with a capacity greater than or equal to 40 m^3 shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity the storage vessel. For storage vessels equal to or greater than 75 m^3, but less than 151m^3, which would include tanks TO-103, TO-104, TO-107 to TO-110, TO-117, and TO-118, the facility should notify IDEM within 30 days when the true vapor pressure of the stored liquid exceeds 27.6 kPa. For storage vessels equal to or greater than 151 m^3, which would include TO-101, TO-105, TO-111, TO-113, and TO-115 the facility should notify IDEM within 30 days when the true vapor pressure of the stored liquid exceeds 5.2 kPa.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of NO_x. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), this source is in Jeffersonville Township therefore it is subject to Subpart b, such that opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of this petroleum products blending and storage facility will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-1-6 (New Facilities - General Reduction Requirement)

This source does not have potential VOC emissions equal to or greater than twenty five (25) tons per year, and is subject to 8-4-3 and 8-9-1, therefore this source is not subject to the provisions of 326 IAC 8-1-6.

326 IAC 8-4-3 (Petroleum Liquid Storage Facility)

This applies to all petroleum liquid storage vessels with capacities greater than one-hundred fifty-thousand (150,000) liters, (39,000 gallons) containing volatile organic compounds whose true vapor pressure is greater than 10.5 kPa (1.52 psia). Apollo has five 66,000 gallon tanks (TO-101, TO-105, TO-111, TO-113, and TO-115), but store volatile organic compounds with a true vapor pressure less than 0.10 mm Hg (1.9×10^{-3} psia), therefore these tanks are not subject to the provisions of 326 IAC 8-4-3.

326 IAC 6-2-4 (Emission Limitations for Facilities specified in 326 IAC 6-2-1(d))

(a) Particulate emissions from indirect heating facilities constructed after September 21, 1983 shall be limited by the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

Where: Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input.
Q = Total source maximum operating capacity rating in million Btu per hour (MMBTu/hr) heat input. The maximum operating capacity rating is defined as maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's permit application, except when some lower capacity is conducted in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Two boilers, B-1 and B-2, used at Apollo America were constructed in 1991. B-3 was constructed in 1999.

Boilers B-1, and B-2, have a maximum total source capacity of 41.9 MMBtu/hr, which yields a Pt value of 0.41 pounds of PM per MMBtu.

$$Pt = \frac{1.09}{41.9^{0.26}} = \frac{1.09}{2.64} = 0.41$$

including B-3, the maximum total source capacity becomes 42.725 MMBtu/hr., which yields a Pt value of 0.41 pounds per MMBtu.

$$\frac{1.09}{42.725^{0.26}} = \frac{1.09}{2.65} = 0.41$$

Note, the maximum potential to emit PM emissions rate for all three boilers is 0.04 pounds per hour.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)

This rule applies to stationary vessels used to store volatile organic liquids (VOL) that are located in specified counties, including Clark County.

Vessels with a capacity less than thirty-nine thousand (39,000 gallons), which would include tanks TO-103, TO-104, TO-107 to TO-110, TO-117, TO-108, TO-701 to TO-711, TO-201 to TO-211, and TO-321 to TO-325, are subject to the reporting and record keeping provisions 6(a) and (b) of this section. This requires maintaining a record and submitting to the department a report containing the following information for each vessel:

(a) Vessel identification number
(b) Vessel dimensions
(c) Vessel capacity

Stationary vessels with capacity equal to or greater than thirty-nine thousand (39,000) gallons that store a VOL with a maximum true vapor pressure equal to or greater than five-tenths (0.5) pounds per square inch (psia), but less than seventy-five hundredths (0.75) psia, are subject to the provisions of 6(a), 6(b), 6(g) and 6(h) of this rule. Apollo has five VOL storage tanks (TO-101, TO-105, TO-111, TO-113, and TO-115), with a capacity of 66,000 gallons, but the VOL stored in the tanks have a true vapor pressure of 1.9×10^{-3} psia and is therefore not subject to this rule.

Furthermore all tanks at Apollo are exempt from this rule as noted in 326 IAC 8-9-2 (Exemptions) (8) as they are stationary vessels subject to any provisions of 40 CFR 60, Subpart Kb, New Source Performance Standards for Volatile Organic Liquid Storage. Tanks with a storage capacity greater than 40 m^3 at Apollo are subject to the reporting provisions of Subpart Kb.

Note: TO-321 to TO-325 are 450 gallons and are not subject to Subpart Kb. Therefore, must comply with the reporting requirements of 326 IAC 8-9-1.

Conclusion

The construction and operation of this petroleum product storage and blending facility shall be subject to the conditions of the attached proposed Registration 019-13776-00047.

Appendix A: Emissions Calculations - Summary

Company Name: **Apollo America Corporation**
Address City IN Zip: **701 Port Road, Jefferson, Indiana 47130**
CP: **019-13776**
Plt ID: **019-00047**
Reviewer: ERG/RB
Date: Febraury 18, 2001

Uncontrolled Potential Emissions (tons/yr)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	1.75	1.75	0.14	22.96	1.26	19.29
Storage tanks					0.97	
Total	**1.75**	**1.75**	**0.14**	**22.96**	**2.23**	**19.29**

Uncontrolled Potential Emissions (lbs/hr)

Process	PM*	PM10*	SO2	NOx	VOC	CO
Combustion	0.40	0.40	0.03	5.24	0.29	4.40
Storage tanks	0.00	0.00	0.00	0.00	0.22	0.00
Total	**0.40**	**0.40**	**0.03**	**5.24**	**0.51**	**4.40**

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: **Apollo America Corporation**
Address City IN Zip: **701 Port Road, Jefferson, Indiana 47130**
CP: **019-13776**
Plt ID: **019-00047**
Reviewer: ERG/RB
Date: Febraury 18, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
52.4	459.3

Pollutant	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	1.745	1.745	0.138	22.964	1.263	19.290

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Company Name: ERR
Address City IN Zip: ERR
CP: ERR
Plt ID: ERR
Reviewer: ERR
Date: ERR

HAPs - Organics

	Benzene	e	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	4.823E-04	2.756E-04	1.722E-02	4.134E-01	7.808E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.148E-04	2.526E-04	3.215E-04	8.726E-05	4.823E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
VOC
From Storage Tanks

Company Name: **Apollo America Corporation**
Address City IN Zip: **701 Port Road, Jefferson, Indiana 47130**
CP: **019-13776**
Plt ID: **019-00047**
Reviewer: ERG/RB
Date: Febraury 18, 2001

Tank Capacity (gallons)	Number of units	Vapor Pressure (PSIA)	VOC emissions per tank (lbs/yr)*	Total VOC emissions per tank (tons/yr)
66000	5	0.002	8.79	0.02
33000	8	0.002	4.37	0.02
17600	11	0.0967	133.17	0.73
11000	11	0.0967	32.62	0.18
450	4	0.0967	8.99	0.02
450	1	0.0967	9.82	0.00
Total	**40**		**197.76**	**0.97**

* Derived from U.S. EPA Tanks software version 4.0

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	to-101
City:	Jeffersonville
State:	Indiana
Company:	Apollo America, Inc.
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	40.00
Diameter (ft):	17.00
Liquid Height (ft):	38.00
Avg. Liquid Height (ft):	37.00
Volume (gallons):	64,521.51
Turnovers:	22.22
Net Throughput (gal/yr):	1,315,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	0.00

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Indianapolis, Indiana (Avg Atmospheric Pressure = 14.33 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Petroleum products	All	54.01	48.91	59.11	52.28	0.0020	0.0020	0.0020	130.0000			0.00	

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Petroleum products	8.14	0.65	8.79

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	to-103
City:	Jeffersonville
State:	Indiana
Company:	Apollo America, Inc.
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	40.00
Diameter (ft):	12.00
Liquid Height (ft):	38.00
Avg. Liquid Height (ft):	37.00
Volume (gallons):	29,611.04
Turnovers:	22.22
Net Throughput (gal/yr):	658,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	0.00

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Indianapolis, Indiana (Avg Atmospheric Pressure = 14.33 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Petroleum products	All	54.01	48.91	59.11	52.28	0.0020	0.0020	0.0020	130.0000			0.00	

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Petroleum products	4.07	0.30	4.37

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	to-701
City:	Jeffersonville
State:	Indiana
Company:	Apollo America, Inc.
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	27.00
Diameter (ft):	10.00
Liquid Height (ft):	26.00
Avg. Liquid Height (ft):	25.00
Volume (gallons):	15,275.53
Turnovers:	27.63
Net Throughput (gal/yr):	422,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	0.00

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Indianapolis, Indiana (Avg Atmospheric Pressure = 14.33 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Petroleum products	All	54.01	48.91	59.11	52.28	0.0967	0.0967	0.0967	130.0000			0.00	

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Petroleum products	126.30	6.88	133.17

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	to-201
City:	Jeffersonville
State:	Indiana
Company:	Apollo America, Inc.
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	19.00
Diameter (ft):	10.00
Liquid Height (ft):	18.00
Avg. Liquid Height (ft):	17.00
Volume (gallons):	10,575.37
Turnovers:	8.13
Net Throughput (gal/yr):	86,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	0.00

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Indianapolis, Indiana (Avg Atmospheric Pressure = 14.33 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Petroleum products	All	54.01	48.91	59.11	52.28	0.0967	0.0967	0.0967	130.0000			0.00	

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Petroleum products	25.74	6.88	32.62

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	New
City:	
State:	
Company:	
Type of Tank:	Horizontal Tank
Description:	

Tank Dimensions

Shell Length (ft):	5.00
Diameter (ft):	6.90
Volume (gallons):	450.00
Turnovers:	85.00
Net Throughput (gal/yr):	38,250.00
Is Tank Heated (y/n):	N
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Indianapolis, Indiana (Avg Atmospheric Pressure = 14.33 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Petroleum products	All	54.01	48.91	59.11	52.28	0.0967	0.0967	0.0967	130.0000			0.00	

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Petroleum products	5.95	3.87	9.82

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	New
City:	
State:	
Company:	
Type of Tank:	Horizontal Tank
Description:	

Tank Dimensions

Shell Length (ft):	5.00
Diameter (ft):	6.90
Volume (gallons):	450.00
Turnovers:	48.00
Net Throughput (gal/yr):	21,600.00
Is Tank Heated (y/n):	N
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Indianapolis, Indiana (Avg Atmospheric Pressure = 14.33 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vapor Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Petroleum products	All	54.01	48.91	59.11	52.28	0.0967	0.0967	0.0967	130.0000			0.00	

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Petroleum products	5.12	3.87	8.99